

## REMARKS

Applicants thank the Examiner for total consideration given the present application. Claims 1-16 were pending prior to the Office Action. Claims 8, 10-12, 14, and 16 are amended by this reply to clarify the claimed features. Claims 1-16 are pending. Claims 1, 8 and 12 are independent. Favorable reconsideration and allowance of the present application are respectfully requested in view of the following remarks.

### 1. ALLOWABLE SUBJECT MATTER

Applicants appreciate that claims 1-7 are allowed. Applicants further appreciate that claims 11-14 are indicated to define allowable subject matter. Claims 12 has been amended into independent form without changing claim language and is therefore allowable along with dependent claims 13 and 14. Claim 14 has been amended to correct a minor informality.

### 35 U.S.C. § 103 REJECTION – HONG ET AL. IN VIEW OF MIYAZAKI ET AL. or UCHIDA ET AL.

Claims 8-10, 15, and 16 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over HONG et al. ("Microstrip Filters for RF/Microwave Applications") (hereinafter "HONG") in view of MIYAZAKI et al (USPN 5,896,073) (hereinafter "MIYAZAKI") or HONG in view of UCHIDA et al (JP 07-094908) (hereinafter "TOSHIO"). Applicants respectfully traverse these rejections.

For a Section 103 rejection to be proper, a *prima facie* case of obviousness must be established. See M.P.E.P. 2142. One requirement to establish *prima facie* case of obviousness is that the prior art references, when combined, must teach or suggest all claim limitations. See M.P.E.P. 2142; M.P.E.P. 706.02(j). Thus, if the cited references

fail to teach or suggest one or more elements, then the rejection is improper and must be withdrawn.

The Examiner relies on HONG's figures 6.5 and 6.7, where a plurality of parallel resonant circuits are connected through transmission lines each having a quarter wavelength. , HONG's figure 6.7(b) illustrating the equivalent circuit of figure 6.5 effectively discloses no more than the Background Art described in relation to applicant's Figure 11. In contrast claim 8 recites

"A band rejection filter with attenuation poles comprising:  
a plurality of parallel resonant circuits each connected to one of a pair of transmission lines having a length that is an odd multiple of about one-quarter wavelength corresponding to a resonance frequency of the plurality of parallel resonant circuits; and  
a jump-coupling circuit for coupling two parallel resonant circuits, belonging to different transmission lines, to each other."

HONG clearly does not teach or suggest a pair of transmission lines and a jump-coupling circuit for coupling two parallel resonant circuits, belonging to the pair of transmission lines, to each other.

MIYAZAKI discloses a band pass filter with resonating strip and jump-coupling along a single transmission line to achieve desired attenuation poles in the passing characteristics. MIYAZAKI does not teach or suggest having a pair of transmission lines and a jump-coupling circuit for coupling two parallel resonant circuits, belonging to the pair of transmission lines, to each other. MIYAZAKI does not teach or suggest the above limitation recited in claim 8 and does not correct the defects of HONG, effectively the same defects of applicant's admitted Background Art.

TOSHIO describes a resonant filter having  $\frac{1}{4}$  wavelength delays which aid in defining the resonator filter pattern. TOSHIO does not teach or suggest having a pair of transmission lines and a jump-coupling circuit for coupling two parallel resonant circuits, belonging to the pair of transmission lines, to each other. TOSHIO does not teach or

suggest the above limitation recited in claim 8 and also fails to correct the defects of HONG.

Therefore, the above prior art rejections fail to teach the features in claim 8.

Another requirement to establish *prima facie* case of obviousness is that there must be a suggestion or motivation within the cited reference(s) to modify the reference(s) as proposed in the Office Action. See *M.P.E.P. 2143.01*. The claimed invention as a whole must be considered. It is not enough to determine whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. See *M.P.E.P. 2141.02*.

In this instance, the Examiner contends that providing a pair transmission lines instead of a single transmission line is an obvious design modification. In essence the examiner is arguing that the invention is merely design choice over applicant own admitted Background Art (generally equivalent to the teachings of HONG).

The Examiner did not provide any suggestion or motivation within the cited reference of the above mentioned modification. MIYAZAKI fails to teach plurality of parallel resonant circuit connected through a pair of transmission lines. Therefore, combination of HONG and MIYAZAKI cannot suggest a jump-coupling circuit for coupling two parallel resonant circuits, belonging to the pair of transmission lines, to each other.

In this instance, it appears that the only motivation to combine has been gleaned from the teachings of the present application. This constitutes impermissible hindsight. See *MPEP 2141*. Simply put, there is no showing in the Office Action that the conclusion of obviousness was reached on the basis of facts gleaned from the prior art, and not from the claimed invention. See *MPEP 2143*.

Therefore, for at least these reasons, claim 8 is patentable over the combination of HONG and MIYAZAKI or HONG and TOSHIO. Claim 9, 10, 15, and 16 depends from claim 8. Therefore, for at least the reasons stated with respect to claims 8, claim

9, 10, 15, and 16 are also distinguishable over the combination of HONG and MIYAZAKI or TOSHIO.

Applicant respectfully requests that the rejection of claims 8-10, 15, and 16, based on HONG and MIYAZAKI or TOSHIO, be withdrawn.

Applicants note that the examiner has applied two rejections against claims 8-11, 15 and 16. However, to simplify any needed appeal, if the examiner is not persuaded to allow all pending claims, the examiner is requested to adopt his best rejection.

### CONCLUSION

All rejections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance. Should there be any outstanding matters that need to be resolved, the Examiner is respectfully requested to contact Michael K. Mutter (Reg. No. 29,680), to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

Dated: February 13, 2007

Respectfully submitted,

By  
Michael K. Mutter

Registration No.: 29,680  
BIRCH, STEWART, KOLASCH & BIRCH, LLP  
8110 Gatehouse Road, Suite 100 East  
P.O. Box 747  
Falls Church, Virginia 22040-0747  
(703) 205-8000  
Attorney for Applicant